



U.S. NUCLEAR REGULATORY COMMISSION

# STANDARD REVIEW PLAN

OFFICE OF NUCLEAR REACTOR REGULATION

## 13.2.2 TRAINING FOR NONLICENSED PLANT STAFF

### REVIEW RESPONSIBILITIES

Primary review branch - The branch responsible for human performance

Secondary - None

### I. AREAS OF REVIEW

The applicant's training program for the nonlicensed plant staff, as described in the safety analysis report (SAR), is reviewed. This section of the SAR should contain the description and scheduling of the training and retraining programs for the nonlicensed plant staff.

#### A. Construction Permit (CP) and Combined License (COL)

The program description should be for each position or organizational unit identified in SAR Section 13.1.2. The schedule is reviewed to verify that it is tied to expected fuel loading, reflects expected completion of required initial training prior to fuel load, and adequately covers the preoperational test period. The training program description should include the following elements:

1. The applicant's commitment to meet the guidelines of Regulatory Guide 1.8 for nonlicensed personnel.
2. For positions covered by 10 CFR 50.120, a commitment to meet the requirements of 10 CFR 50.120 at least 18 months before fuel load.

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### USNRC STANDARD REVIEW PLAN

Standard review plans are prepared for the guidance of the Office of Nuclear Reactor Regulation staff responsible for the review of applications to construct and operate nuclear power plants. These documents are made available to the public as part of the Commission's policy to inform the nuclear industry and the general public of regulatory procedures and policies. Standard review plans are not substitutes for regulatory guides or the Commission's regulations and compliance with them is not required. The standard review plan sections are keyed to the Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants. Not all sections of the Standard Format have a corresponding review plan.

Published standard review plans will be revised periodically, as appropriate, to accommodate comments and to reflect new information and experience.

Comments and suggestions for improvement will be considered and should be sent to the U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, Washington, D.C. 20555.

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3. A commitment to conduct an onsite formal training program and on-the-job training such that the entire plant staff will be qualified before the initial fuel loading.
4. A commitment to conduct an initial fire protection training program including:
  - a. Periodic drills during construction
  - b. Provisions for indoctrination of construction personnel, as necessary

A commitment to verify that initial fire protection training will be completed prior to receipt of fuel at the site.

5. The applicant's plans for conducting a position task analysis are reviewed to verify that the tasks performed by persons in each position are defined, and that the training, in conjunction with education and experience, is identified to provide assurance that the tasks can be effectively carried out.
6. For all plant personnel identified in SAR Section 13.1.2, the proposed subject matter of each course, the duration of the course (approximate number of weeks personnel are in full-time attendance), the organization teaching the course or supervising instruction, and the titles of the positions for which the course is given.
7. A description of the provisions for training employees and nonemployees whose assistance may be needed in a radiological emergency, as required by 10 CFR Part 50, Appendix E, Section II.F.

A description of the training program for the individual(s) responsible for the formulation and assurance of the implementation of the fire protection program. The training program description is reviewed to verify that it adequately addresses those items listed in Branch Technical Position SPLB 9.5-1 attached to Standard Review Plan (SRP) Section 9.5.1.

- a. The proposed means for evaluating the training program effectiveness for all employees in accordance with the systems approach to training.
- b. For COL, applicants provide implementation milestones for the training program.

**B. Operating License (OL) and COL holder - verification through the Construction Inspection Program**

The training program description is verified by identifying the extent to which the training program has been accomplished at the approximate time of the SAR submittal. The description verification includes, contingency plans for additional training in the event that fuel loading is significantly delayed until after the date indicated in the SAR.

The applicant's plans for retraining of plant nonlicensed personnel are also reviewed and verified to adequately identify the additional plant staff categories for which retraining will be provided, and the nature, scope, and frequency of such retraining (13.2.2.2). The program should include provisions for training on modifications to plant systems or functions. The program description should include the following elements:

1. A detailed description of the training programs for nonlicensed personnel to meet the guidelines of Regulatory Guide 1.8.
2. A detailed description of the training programs developed using a systems approach to training, as defined in 10 CFR 55.4, for all positions covered by 10 CFR 50.120.
3. For programs not covered under 10 CFR 50.120, the subject matter of each course, including a syllabus or equivalent course description, the duration of the course (approximate number of weeks personnel are in full-time attendance), the organization teaching the course or supervising instruction, and the titles of the positions for which the course is given. The program is verified to distinguish between classroom training and on-the-job training, before and after the initial fuel loading.

Any difference in the training programs for individuals based on the extent of previous nuclear power plant experience. The structuring of training based on experience groups is verified to appropriately address the following categories of personnel experience:

- a. Individuals with no previous experience
  - b. Individuals who have had nuclear experience at facilities not subject to licensing
  - c. Individuals who have had experience at comparable nuclear facilities
4. A detailed description of the fire protection training and retraining for the initial plant staff and replacement personnel. The program is verified to adequately address:
    - a. The training planned for each member of the fire brigade
    - b. The type and frequency of periodic firefighting drills
    - c. The training provided for all remaining staff members, including personnel responsible for maintenance and inspection of fire protection equipment
    - d. The indoctrination and training provided for people temporarily assigned onsite duties during shutdown and maintenance outages, particularly persons allowed unescorted access
    - e. The training provided for the fire protection staff members. The program description is verified to include the course of instruction, the number of hours of each course, and the organization conducting the training
  5. OL and COL applicants should provide a description of the results of the position's task analysis and the program as implemented. The description is reviewed to verify that the program has been implemented based on the plans provided previously.
  6. A description of training and exercises, via periodic drills, of radiation emergency plans required by 10 CFR Part 50, Appendix E, Section IV.F. The training program is verified to include initial training and periodic retraining for categories of employees and nonemployees whose assistance may be needed in the event of a radiological emergency.
  7. Means for evaluating the training program effectiveness for each employee in accordance with a systems approach to training.

### **C. Design Certification**

The development of training programs will be designated as the responsibility of a COL applicant.

### **D. Review Interfaces**

The primary review branch performs the following reviews under the SRP sections indicated:

SRP Sections 13.1.1 through 13.1.3 - Conduct of Operations  
SRP Section 13.2.1 - Reactor Operator Training  
SRP Section 13.5.2.1 - Administrative Procedures - General  
SRP Section 13.5.2.2 - Operating and Emergency Operating Procedures  
SRP Section 18.0 - Human Factors Engineering

The primary review branch will coordinate evaluations and reviews by other branches that support the overall review of training requirements for nonlicensed plant staff as follows:

1. SRP Section 13.3, 10 CFR Part 50, Appendix E, Sections II.F and IV.F, as they relate to training of personnel used during emergencies.
2. SRP Section 12.5, 10 CFR 19.12 for radiological protection training.
3. SRP Section 13.6 for training of personnel controlling secured areas.
4. SRP Section 9.5.1 for fire protection training.

For those areas of review identified above as being part of the review under other SRP sections, the acceptance criteria necessary for the review and their methods of application are contained in the referenced SRP sections.

## **II. ACCEPTANCE CRITERIA**

### **1. General Guidance**

The SAR should demonstrate that the training provided, or to be provided, for each position on the plant staff will be adequate to provide assurance that all plant staff personnel training and qualification requirements will be met at the time needed, i.e., prior to preoperational tests, prior to fuel loading, or prior to appointment or reappointment to the position.

Staff acceptance criteria in this subsection are designed to provide reasonable assurance that an applicant in compliance with these criteria will meet the relevant requirements of the following regulations:

1. 10 CFR 19.12 as it relates to appropriately informing and instructing personnel regarding the presence of radioactive materials and radiation, health protection

problems associated with exposure thereto, means and responsibilities for protection of workers therefrom, and the availability upon request of radiation exposure reports. The personnel that must be so informed and instructed are all individuals who are likely to receive in a year an occupational dose greater than 1 mSv (100 mrem).

2. 10 CFR 26.21 and 10 CFR 26.22 as they relate to providing personnel training in conjunction with the fitness-for-duty program.
3. 10 CFR 50.34(a) and (b) as they relate to details of training given to nonlicensed plant personnel and a schedule for such training.
4. 10 CFR 50.40(b) as it relates to training being an integral part of personnel technical qualification, which contributes to the finding that the applicant is technically qualified to engage in licensing activities.
5. 10 CFR 50.120 and 10 CFR 52.78 as they relate to derivation of training programs from a systems approach to training.
6. 10 CFR Part 50, Appendix E, Sections II.F and IV.F, as they relate to establishing emergency preparedness training and retraining programs covering employees and other nonemployees whose assistance may be needed in a radiological emergency.

## 2. Specific Criteria

Specific criteria necessary to meet the relevant requirements of 10 CFR 19.12, 26.21, 26.22, 50.34(a) and (b), 50.40(b), 50.120, and 52.78 are as follows:

1. The nonlicensed plant personnel should be trained in accordance with an appropriate ANSI standard as endorsed by Regulatory Guide 1.8.
2. Training programs shall be developed, established, implemented, and maintained using a systems approach to training as required by 10 CFR 50.120 and 10 CFR 52.78 and as defined in 10 CFR 55.4. Training program development will be evaluated by the staff using the guidance contained in NUREG-0711 and training program content and effectiveness will be evaluated using NUREG-1220.
3. Simulation facilities used for training nonlicensed plant personnel should meet the guidelines of Regulatory Guide 1.149.
4. Personnel to be granted access to protected areas or to emergency operations facilities shall be trained to ensure understanding of information related to the fitness-for-duty program, including the associated policies and procedures, the hazards and effects of drugs and alcohol, available employee assistance programs, responsibilities under the policy, and the consequences that may result from lack of adherence to the policy, as required in 10 CFR 26.21. Managers, supervisors, and persons assigned to escort duties must be trained to ensure they understand the roles and responsibilities of personnel involved in the

fitness-for-duty program, techniques for recognizing drugs and indications of drug possession or use, techniques for behavioral observation, and procedures for initiating corrective actions under the program, as required in 10 CFR 26.22.

5. Training programs related to radiological emergencies shall meet the requirements of 10 CFR Part 50, Appendix E, Section II.F or IV.F, as applicable. The detailed evaluation criteria and methods for the verification of overall compliance with these requirements are contained in SRP Section 13.3.
6. Formal segments of the initial training program should be substantially completed when the preoperational test program begins.
7. The number of people for whom training is planned prior to fuel load should be sufficient to ensure that applicable technical specification conditions with respect to the number of plant personnel can be met from the time of initial fuel loading of the first unit, with due allowance for contingencies and the need to avoid planned overtime for supervisory personnel during the startup phase.
8. Refresher training for nonlicensed personnel should be periodic and not less frequent than every 2 years and should include, at a minimum, refresher instruction on administrative, radiation protection, emergency, and security procedures.
9. The detailed guidance and criteria for review of radiological protection training and retraining programs, including the evaluation of their adequacy in informing and instructing personnel pursuant to the requirements of 10 CFR 19.12, is described in SRP Section 12.5.
10. Fire Protection Training

a. Fire Brigade Training

The fire brigade training program shall in general follow the guidelines of Branch Technical Position (BTP) SPLB 9.5-1 to ensure that the capability to fight potential fires is established and maintained. The program shall consist of an initial classroom instruction program followed by periodic classroom instruction, firefighting practice, and fire drills as follows:

(1) Instruction

- (a) The initial classroom instruction shall include:
  - i) Indoctrination in the plant firefighting plan with specific identification of each individual's responsibilities.
  - ii) Identification of the type and location of fire hazards and associated types of fires that could occur in the plant.
  - iii) The toxic and corrosive characteristics of expected products of combustion.
  - iv) Identification of the location of firefighting equipment for each fire area and familiarization with the layout of the

- plant, including access and egress routes to and from each area.
- v) The proper use of available firefighting equipment and the correct method of fighting each type of fire. The types of fires covered should include fires in energized electrical equipment, fires in cables and cable trays, hydrogen fires, fires involving flammable and combustible liquids or hazardous process chemicals, fires resulting from construction or modifications (welding), and record file fires.
  - vi) The proper use of communication, lighting, ventilation, and emergency breathing equipment.
  - vii) The proper method for fighting fires inside buildings and confined spaces.
  - viii) The direction and coordination of the firefighting activities (fire brigade leaders only).
  - ix) Detailed review of firefighting strategies and procedures.
  - x) Review of the latest plant modifications and corresponding changes in firefighting plans.

Note: Items ix and x may be deleted from the training of no more than two of the nonoperations personnel who may be assigned to the fire brigade.

- (b) The instruction shall be provided by qualified individuals who are knowledgeable, experienced, and suitably trained in fighting the types of fires that could occur in the plant and in using the types of equipment available in the nuclear power plant.
- (c) Instruction shall be provided to all fire brigade members and fire brigade leaders.
- (d) Regular planned meetings shall be held at least every 3 months for all brigade members to review changes in the fire protection program and other subjects as necessary.
- (e) Periodic refresher training sessions shall be held to repeat the classroom instruction program for all brigade members over a 2-year period. These sessions may be concurrent with the regular planned meetings.

(2) Practice

Practice sessions shall be held for each shift fire brigade on the proper method of fighting the various types of fires that could occur in a nuclear power plant. These sessions shall provide brigade members with experience in actual fire extinguishment and the use of emergency breathing apparatus under the strenuous conditions encountered in firefighting. These practice sessions shall be provided at least once per year for each fire brigade member.

**(3) Drills**

- (a)** Fire brigade drills shall be performed in the plant so that the fire brigade can practice as a team.
- (b)** Drills shall be performed at regular intervals not to exceed 3 months for each shift fire brigade. Each fire brigade member should participate in each drill, but must participate in at least two drills per year.

A sufficient number of these drills, but not less than one for each shift fire brigade per year, shall be unannounced to determine the firefighting readiness of the plant fire brigade, brigade leader, and fire protection systems and equipment. Persons planning and authorizing an unannounced drill shall ensure that the responding shift fire brigade members are not aware that a drill is being planned until it is begun. Unannounced drills shall not be scheduled more frequently than 4 weeks apart.

At least one drill per year shall be performed on a "backshift" for each shift fire brigade.

- (c)** The drills shall be preplanned to establish the training objectives of the drill and shall be critiqued to determine how well the training objectives have been met.

Unannounced drills shall be planned and critiqued by members of the management staff responsible for plant safety and fire protection. Performance deficiencies of a fire brigade or of individual fire brigade members shall be remedied by scheduling additional training for the brigade or members. Unsatisfactory drill performance shall be followed by a repeat drill within 30 days.

- (d)** At 3-year intervals, a randomly selected unannounced drill shall be critiqued by qualified individuals independent of the licensee's staff. A written report from such individuals shall be available for NRC review.
- (e)** Drills shall, as a minimum, include the following:
  - i)** Assessment of fire alarm effectiveness, time required to notify and assemble the fire brigade, selection, placement, and use of equipment, and firefighting strategies.
  - ii)** Assessment of each brigade member's knowledge of his or her role in the firefighting strategy for the area assumed to contain the fire. Assessment of the brigade member's compliance with established plant firefighting procedures and use of firefighting equipment, including self-contained emergency breathing apparatus, communication equipment, and ventilation equipment, to the extent practicable.



- iii) The simulated use of firefighting equipment required to cope with the situation and type of fire selected for the drill. The area and type of fire chosen for the drill should differ from those used in the previous drill so that brigade members are trained in fighting fires in various plant areas. The situation selected should simulate the size and configuration of a fire that could reasonably occur in the area selected, allowing for fire development due to the time required to respond, obtain equipment, and organize for the fire, assuming the loss of automatic suppression capability.
- iv) Assessment of the thoroughness, accuracy, and effectiveness of the brigade leader's direction of the firefighting effort.

(4) Records

Individual records of training provided to each fire brigade member, including drill critiques, shall be maintained for at least 3 years to ensure that each member receives training in all parts of the training program. These records of training shall be available for NRC review. Retraining or broadened training for firefighting within buildings shall be scheduled for all brigade members whose performance records show deficiencies.

b. Fire Protection Staff

Training for the fire protection staff members shall include courses in:

- (1) Design and maintenance of fire detection, suppression, and extinguishing systems.
- (2) Fire prevention techniques and procedures.
- (3) Training and manual firefighting techniques and procedures for plant personnel and the fire brigade.

c. Other Station Employees

(1) Instruction

- (a) Instruction shall be provided for all employees once a year. It shall be repeated on an annual basis. The instruction shall be given, as appropriate, on (i) the fire protection plan (ii) the evacuation routes, and (iii) the procedure for reporting a fire.
- (b) Instruction for security personnel shall address (i) entry procedures for outside fire departments, (ii) crowd control for people exiting the station, and (iii) procedures for reporting potential fire hazards observed in touring the facility.

- (c) Instruction for all shift personnel should complement the instruction given to members of the fire brigade.
- (d) Instruction shall be provided to temporary employees so that they are familiar with (i) evacuation signals, (ii) evacuation routes, and (iii) the procedure for reporting fires.

(2) Drills

All employees should participate in an annual evacuation drill.

3. Technical Rationale

The technical rationale for application of these acceptance criteria to reviewing nonlicensed plant staff training is discussed in the following paragraphs:

1. To comply with the relevant requirements of 10 CFR 19.12, the applicant must provide information and instruction on the health effects of radiation and means to minimize exposure to all individuals who are likely to receive in a year an occupational dose in excess of 1 mSv (100 mrem).

The nonlicensed staff training program established by the applicant provides the means to train individuals in precautions and procedures to minimize radiation exposure.

Meeting these requirements provides assurance that the applicant will provide employees with the information needed to minimize radiation exposure.

2. To comply with the relevant requirements of 10 CFR 26.21 and 26.22, the applicant must provide initial and refresher training to ensure that plant staff understand the policy, procedures, and responsibilities of the applicant's fitness-for-duty program.

The nonlicensed staff training program established by the applicant provides the means to train individuals in the policies, procedures, and responsibilities of the fitness-for-duty program. The fitness-for-duty program provides a means for ensuring that plant staff members understand their roles and responsibilities in having only fit individuals present and involved in plant activities.

Meeting these requirements provides assurance that only trained and fit individuals will be on site and involved in plant activities.

3. To comply with the relevant requirements of 10 CFR 50.34(a) and (b) the applicant must submit an SAR with at least the minimum information described in the requirements. Required information includes plans for training personnel and personnel qualification requirements.

The nonlicensed staff training program established by the applicant provides the means to train individuals in the knowledge, skills, and abilities needed to

perform required tasks, particularly tasks associated with fire brigades or radiological response teams, where the skills are not used on a day-to-day basis.

Meeting these requirements provides assurance that trained personnel will be available to perform needed tasks to ensure safe plant operation and response to emergency situations.

4. To comply with the relevant requirements of 10 CFR 50.40(b), the applicant must be technically qualified to engage in activities associated with the design, construction, and operation of a nuclear power plant in accordance with the regulations in 10 CFR Part 50.

The nonlicensed staff training program established by the applicant provides the means to train individuals in the knowledge, skills, and abilities needed to perform required tasks, particularly tasks associated with fire brigades or radiological response teams, where the skills are not used on a day-to-day basis. The applicant's plan and program for training of nonlicensed staff provides insight into the applicant's approach to safe plant operation. This information contributes to the determination that an applicant is technically qualified by ensuring that appropriate considerations were used in the establishment of general training and qualification requirements for all nonlicensed personnel.

Meeting these requirements provides assurance that the applicant is technically qualified to engage in the proposed activities and has established the necessary training program to safely operate the proposed facility.

5. To comply with the requirements of 10 CFR 50.120 and 10 CFR 52.78, the training programs for specified categories of personnel, including several nonlicensed personnel categories, must be established, implemented, and maintained using a systems approach to training as defined in 10 CFR 55.4.

The nonlicensed staff training program established by the applicant provides the means to train individuals in the knowledge, skills, and abilities needed to perform required tasks.

Meeting these requirements provides assurance that trained personnel will be available to perform needed tasks to ensure safe plant operation and appropriate response to abnormal or emergency situations.

### **III. REVIEW PROCEDURES**

Preparation for the review of Section 13.2 of the SAR should include familiarization with the documents listed in Subsection VI of this SRP section.

The reviewer should ensure that, whenever the applicant has committed to follow the position of a regulatory guide, industry standard, or other reference document, the specific revision being referred to is identified. Similarly, whenever the reviewer is using a position in a reference document as a basis for acceptability, the revision being used should be identified.

The reviewer should also ensure that the applicant has committed to a reasonable implementation schedule for the training programs and that the schedule relates to the fuel loading date. The reviewer may consult with the branch with primary responsibility for fire protection for the review of fire protection training.

The reviewer then determines, based upon the foregoing, the overall acceptability of the applicant's plant staff training plans.

For design certification reviews under 10 CFR Part 52, the subject review will be identified as a review to be performed during COL application review.

#### IV. EVALUATION FINDINGS

The reviewer should verify and ensure that the information presented supports an evaluation finding statement, of the following type, to be used in the staff's safety evaluation report:

*The staff concludes that the training for nonlicensed plant staff personnel is acceptable and meets the requirements of 10 CFR 19.12, 26.21 and 26.22, 50.34 (a or b), 50.40(b), and 50.120. This conclusion is based on the following:*

##### A. For CP or COL

The applicant has described in the SAR, in accordance with the requirements of 10 CFR 50.34(a)(6), an acceptable preliminary plan for training of nonlicensed plant personnel and has made appropriate commitments with respect to the plan so that the plan has been demonstrated to satisfy relevant requirements as discussed further below.

##### B. For OL or COL holder - verification through the Construction Inspection Program

The applicant has described in the SAR, in accordance with the requirements of 10 CFR 50.34(b)(7), the details of its training program for nonlicensed personnel, including appropriate commitments with respect to the program, the training given to nonlicensed plant personnel, and a schedule for that training in relation to the applicant's presently scheduled fuel load date.

The training and retraining of nonlicensed personnel meet the guidance of Regulatory Guide 1.8.

The applicant meets the requirements of 10 CFR 19.12 by having a training program that informs and instructs personnel regarding radioactive materials and radiation, health protection problems associated with exposure to radiation, the means and responsibilities for the protection of workers from radiation, and the availability upon request of radiation exposure reports. The findings regarding radiation protection training and retraining programs that address these issues in greater detail are presented in Section 12.5 of this report.

The applicant meets the requirements of 10 CFR 26.21 and 26.22 by having a training program to ensure that personnel are adequately informed regarding the fitness-for-duty policy. Supervisors and persons assigned to escort duties will be trained to ensure that

they understand their roles, responsibilities, and procedures for the fitness-for-duty program. This training program will ensure that they will possess knowledge and skills necessary for recognition of behavioral changes, drugs, and/or indications of the use of drugs.

The applicant has committed to establish, implement, and maintain training programs that will utilize a systems approach to training as required by 10 CFR 50.120 and as defined in 10 CFR 55.4.

Fire brigade personnel will undergo classroom instruction, firefighting practice, and periodic fire drills.

The simulation facilities used in the training program meet the guidelines of Regulatory Guide 1.149.

The training program includes initial training and periodic retraining for categories of employees and nonemployees whose assistance may be needed in the event of a radiological emergency. The findings regarding the adequacy of training and retraining programs related to radiological emergencies are presented in Section 13.3 of this report.

All initial training of the nonlicensed plant staff is scheduled to be completed prior to fuel loading.

Meeting the staff's requirements given above provides an acceptable basis for finding that, insofar as the training of nonlicensed personnel is concerned, the applicant meets the technical qualification requirements of 10 CFR 50.40(b) of the Commission's regulations.

C. For Design Certification

The development of the nonlicensed plant staff training programs is identified as a COL action item.

V. IMPLEMENTATION

The following is intended to provide guidance to applicants and licensees regarding the NRC staff's plans for using this SRP section.

This SRP section will be used by the staff when performing safety evaluations of license applications submitted by applicants pursuant to 10 CFR Part 50 or 10 CFR Part 52. Except when the applicant proposes an acceptable alternative method for complying with specified portions of the Commission's regulations, the method described herein will be used by the staff in its evaluation of conformance with Commission regulations.

The provisions of this SRP section apply to the review of applications docketed 6 months or more after the date of issuance of this SRP section.

Implementation schedules for conformance to parts of the review method discussed herein are contained in the referenced regulatory guides and NUREG.

## **VI. REFERENCES**

1. 10 CFR Part 19, "Notices, Instructions and Reports to Workers: Inspections and Investigations."
2. 10 CFR Part 26, "Fitness For Duty Programs."
3. 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities."
4. 10 CFR Part 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities."
5. 10 CFR Part 52, "Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Plants."
6. Regulatory Guide 1.8, "Qualification and Training of Personnel for Nuclear Power Plants."
7. Regulatory Guide 1.149, "Nuclear Power Plant Simulation Facilities for Use in Operator Training and License Examinations."
8. Branch Technical Position SPLB 9.5-1, attached to SRP Section 9.5.1, "Fire Protection."
9. NUREG-0711, "Human Factors Engineering Program Review Model."
10. NUREG-1220, "Training Review Criteria and Procedures."
11. Generic Letter 86-04, "Policy Statement on Engineering Expertise on Shift," February 1986.

**BIBLIOGRAPHIC DATA SHEET**

(See instructions on the reverse)

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(Same as above)

10. SUPPLEMENTARY NOTES

11. ABSTRACT (200 words or less)

This document provides review guidance for NRC staff to evaluate licensee's or applicant's nonlicensed plant staff training programs. Its purpose is to ensure that the training provided for each position on the plant staff will be adequate to provide assurance that all nonlicensed plant staff training and qualification requirements will be met at the time needed, i.e., prior to operator license examinations, prior to fuel loading, or prior to appointment or reappointment to the position. Reviews conducted using this plan should ensure that nonlicensed plant staff will be trained in accordance with applicable regulations, regulatory guidance, and appropriate industry standards. The documents includes a detailed section on fire protection training.

12. KEY WORDS/DESCRIPTORS (List words or phrases that will assist researchers in locating the report.)

Nonlicensed Operator, Non Licensed Plant Staff, Training, Qualification, Requalification, On-the-Job Training, Fire Birgade, Non Licensed Plant Personnel, Emergency Preparedness, Systems Approach to Training, SAT, Fitness-for-Duty

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